

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

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STATIONARY SOURCE AND COMPLIANCE DIVISION

APPLICATION NO.

DATE

441899

11/14/2007

APPLICATION PROCESSING AND CALCULATIONS

ENGINEER

CHECK BY

HTF

PERMIT TO OPERATE

COMPANY NAME: ACCESS BUSINESS GROUP LLC.

MAILING ADDRESS: 5600 BEACH BLVD.
P.O. BOX 5940, BUENA PARK, CA 90622

EQUIPMENT ADDRESS: 19600 6TH STREET
LAKEVIEW, CA 92567

EQUIPMENT DESCRIPTION

APPLICATION NO. 441899:

BLENDING/MILLING SYSTEM CONSISTING OF:

1. SWECO SCREEN, 2'-6" DIA. X 1'-3" H., WITH TWO 0.38 H.P. MOTORS.
2. PNEUMATIC TRANSFER BLOWER, VAC-U-MAX, 10 H.P.
3. BLENDER, 4'-0" DIA. X 9'-8" L., 125 H.P.
4. PACKAGING STATION.
5. TWO MILLS, 7.5 H.P. AND 15 H.P.

APPLICATION NO. 419828:

AIR POLLUTION CONTROL SYSTEM CONSISTING OF:

1. DUST COLLECTOR, FARR, MODEL 10D, WITH TEN CARTRIDGES, EACH 1'-1" DIA. X 2'-11" H., TOTAL FILTER AREA OF 2,820 SQ. FT., PULSE JET CLEANED.
2. EXHAUST SYSTEM WITH A 15 H.P. BLOWER VENTING A SWECO SCREEN, BLENDER, PACKAGING STATION, TWO MILLS, AND TWO BOWL BINS (T7 AND T8).

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HISTORY

The blending/milling application was received by the District on 3/15/05 as P/O no P/C and was validated on 3/15/05. The blending/milling equipment was originally submitted under A/N 419823 on Sept. 2003. Then on March 2005 the applicant submitted this application to replace A/N 419823. The dust collector application was received by the District on 9/3/03 and was validated on 9/3/03. The company is in the business of vitamin and food supplement manufacturing. A check in the Compliance database shows no violations for the facility for the last five years.

According to Kevin McBennett of Access Business Group, the system is completely different now compared to the original application. Please see new equipment diagram dated 7/18/2007.

PROCESS DESCRIPTION

Raw materials are manually dropped into a sweco screen. The raw materials are then transfer to the blender with a Vac-U-Mac blower. After the blender is filled with the desired raw materials, they are mixed and transferred either into a container (e.g. tote, bin, drum) at the packaging station or through the two milling machines. The milled materials are then transferred into a bowl bin and into Fluidizing beds T7 (A/N 419825) and T8 (419827) for further processing. Materials transferred to a container may be transferred to other processes on-site, or may be transferred to an off-site location.

EVALUATION

Given:

1. process weight = 920 kg/batch = 2,028.23 lbs/batch
2. Maximum 16 batches/dy
3. Operating schedule = 24 hrs/day, 7 days/wk, 52 weeks/yr

Assumptions:

1. Emission factor = 2 lbs PM/ton
2. PM10 = (0.56)(PM)
3. Control eff. = 99%

Computations:

PM Emissions:

$$R1 = 2,028.23 \text{ lbs/batch} \times 16 \text{ batches/dy} / 24 \text{ hrs/dy} \times 2 \text{ lbs PM/ton} \times 1 \text{ ton}/2000 \text{ lbs} \\ = 1.352 \text{ lbs/hr}$$

$$R2 = 1.352 \text{ lbs/hr} \times 0.01 = 0.014 \text{ lb/hr}$$

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**PAGES****PAGE****5****3****STATIONARY SOURCE AND COMPLIANCE DIVISION****APPLICATION NO.****DATE****441899****11/14/2007****APPLICATION PROCESSING AND CALCULATIONS****ENGINEER****CHECK BY****HTF****PM10 Emissions:**

$$R1 = 1.352 \text{ lbs/hr} \times 0.56 = 0.76 \text{ lb/hr}$$

$$R2 = 0.014 \text{ lbs/hr} \times 0.56 = 0.008 \text{ lb/hr}$$

$$R2(\text{daily}) = 0.008 \text{ lbs/hr} \times 24 \text{ hrs/dy} = 0.19 \text{ lbs/dy}$$

$$R2(30\text{-day ave}) = 0.19 \text{ lbs/dy}$$

$$R2(\text{yearly}) = 0.19 \text{ lbs/dy} \times 7 \text{ dys/wk} \times 52 \text{ wks/yr} = 68.49 \text{ lbs/yr}$$

$$\begin{aligned} \text{Max. throughput} &= 2,028.23 \text{ lbs/batch} \times 16 \text{ batches/dy} \times 7 \text{ dys/wk} \times 4.33 \text{ wks/mo} / 2000 \text{ lbs/ton} \\ &= 490 \text{ tons/mo} \end{aligned}$$

Air pollution control system filter ratio:

$$\frac{4000 \text{ cfm}}{2820 \text{ sq.ft.}} = 1.4 \text{ fpm}$$

EPA recommends an air-to-cloth ratio of < 15:1 for pulse jet type dust collector. Compliance.

RULES COMPLIANCE

Rule 212: Not expected to exceed the emission limitations of subparagraph (a), (Health and Safety Code, Sect. 41700, and 41701). Also, no school within 1,000 ft of the equipment.

Rule 401: No visible emissions in violation of this rule are expected since the equipment is vented to a dust collector.

Rule 402: The small amount of PM emissions from the equipment are not expected to create any nuisance conditions.

Rule 403: Fugitive emission problems are not expected since the equipment is vented to a dust collector..

Rule 404:

$$\frac{[0.01 \text{ LBS/HR}] [7000 \text{ GRAIN}] [1 \text{ HR}]}{[4,000 \text{ CFM}] [1 \text{ LB}] [60 \text{ MIN}]} = 0.00029 \text{ GR/FT}^3$$

This rule limits a maximum grain loading of 0.107 grain/ft³, therefore, this equipment is in compliance with provisions of this rule.

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Rule 405:

Process Weight Rate = 1,352 lbs/hr
 Calculated Emissions = 0.01 lb/hr
 Allowed Emissions = 2.95 lbs/hr (Approx.)
 In compliance per calculations.

Rule 1303(a): BACT is a baghouse or dust collector for PM10 control. Since the equipment is vented to a dust collector, compliance with this rule is demonstrated.

Rule 1303(b) (1): The allowable PM10 emissions for a noncombustion source are specified in Table A-1 as 0.41 lbs/hr. The controlled PM10 emissions from this equipment is less than 0.41 lbs/hr; therefore, no further screening analysis is required.

Rule 1303(b) (2): No emissions offset are required to this equipment.

Rule 1303(b) (3): N/A

Rule 1303(b) (4): The subject facility complies with all applicable rules and regulations of the District.

Rule 1303(b) (5): The subject facility is not a "major polluting facility." Therefore, the requirements of this rule do not apply.

Rule 1401: No toxics will be released.

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RECOMMENDATION

It is recommended a conditional Permit to Operate be issued.

CONDITIONS

APPLICATION NO. 441899:

1. STANDARD CONDITION.
2. STANDARD CONDITION.
3. THIS EQUIPMENT SHALL NOT BE OPERATED UNLESS THE EQUIPMENT IS VENTED ONLY TO AIR POLLUTION CONTROL EQUIPMENT WHICH IS IN FULL USE AND WHICH HAS BEEN ISSUED A PERMIT TO OPERATE BY THE EXECUTIVE OFFICER.
4. THIS EQUIPMENT SHALL NOT PROCESS MORE THAN 490 TONS OF MATERIAL IN ANY ONE CALENDAR MONTH.
5. RECORDS SHALL BE MAINTAINED TO PROVE COMPLIANCE WITH CONDITION NO. 4. THE RECORDS SHALL BE MAINTAINED FOR AT LEAST THE LAST FIVE YEARS, AND SHALL BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.

APPLICATION NO. 419828:

1. STANDARD CONDITION.
2. STANDARD CONDITION.
3. THE FILTER CARTRIDGES SHALL BE CLEANED AT A FREQUENCY SPECIFIED BY THE MANUFACTURER.
4. DUST COLLECTED IN THE DUST COLLECTOR SHALL BE DISCHARGED ONLY INTO ENCLOSED CONTAINERS.
5. A MECHANICAL GAUGE SHALL BE INSTALLED AND MAINTAINED SO AS TO INDICATE, IN INCHES WATER COLUMN, THE STATIC PRESSURE DIFFERENTIAL ACROSS THE FILTER CARTRIDGES.